

REMARKS

Status of Claims

Claim 18 has been amended. Claims 1-8 and 16-23 were previously elected for prosecution, and claims 9-15 were previously withdrawn. Claims 1-8 and 16-23 are currently presented for examination.

Objections to the Claims

Claim 18 has been amended to address the antecedent basis concern raised in the Office Action.

Applicant has considered the objection in the Office Action to the use of “a load dump” in claims 1, 3, 4, 6, 16 and 19 after “a load dump” had already been introduced. However, Applicant notes that the successive uses of “a load dump” are done because the first use of “a load dump” in claims 1 and 16 introduces a condition. The next uses of “a load dump” are setting forth the limitations directed to the outcomes from the conditional limitation. In particular, claim 1 sets forth a step of “determining whether the voltage pulse is a load dump” and then sets forth the limitations for where “the voltage pulse is a load dump” and where “the voltage pulse is not a load dump.” Similarly, claim 16 sets forth “a pulse detector operable to ... determine whether the voltage pulse is a load dump” and then sets forth structure related to the result of this determination where “the voltage pulse is a load dump” and where “the voltage pulse is not a load dump.” Claims 3, 4, 6 and 19 also refer to the original conditional limitation. Thus, the language as it is makes the most logical sense, and it is not believed that this language creates a problem under §112. Applicant respectfully requests that the objections to the successive uses of “a load dump” in claims 1, 3, 4, 6, 16 and 19 be reconsidered and withdrawn.

Claim Rejections

The Office Action has rejected the pending claims as being anticipated by US 5,103,124 (Glehr), as being anticipated by US 5,285,344 (Heitzmann), and/or as being obvious over Glehr in combination with other references. Applicant respectfully traverses these rejections.

Claim 1 requires “**disconnecting** the system from power” if a voltage pulse is determined to be a load dump. Similarly, claim 16 requires “a series switch” that is “operable to **disconnect** the system from power if the voltage pulse is a load dump.”

Glehr and Heitzmann do not teach or suggest these “disconnecting” and “series switch” limitations.

Glehr teaches turning on a load switch (6) if a load dump is determined to have occurred, and turning off the load switch (6) if a load dump is determined not to have occurred. [Glehr, col. 5, lns. 11-36]. Thus, load switch (6) is “on” during the load dump and “open” once the load dump has ended. [Glehr, col. 5, lns. 34-36.] Looking at FIG. 1 of Glehr and considering this operation, it is seen that load switch (6) does not operate to disconnect the load (7) from power during a load dump. Rather, it apparently acts more like limiter during a load dump event. In short, load switch (6) is “on” during a load dump. Load switch (6) does not “disconnect” a system from power as required by claims 1 and 16.

Heitzmann teaches shorting a power generator during an overvoltage event using a MOSFET (27) connected in parallel with the generator. [Heitzmann, col. 4, lns. 58-60.] However, Heitzmann does not disconnect system components from power during a load dump; rather, Heitzmann continues to provide power to these components [Heitzmann, col. 6, lns. 3-10.] The shorting of the generator is apparently done to keep the generated voltage from increasing in an uncontrolled manner. [Heitzmann, col. 5, ln. 63 to col. 6, ln. 2.] In short, the MOSFET (27) is “on” during a load dump to short the generator. MOSFET (27) does not “disconnect” a system from power as required by claims 1 and 16.

With respect to claim 16, it is further noted that neither Glehr and Heitzmann teach a “series switch” that is “operable to disconnect the system from power if the voltage pulse is a load dump.” The load switch (6) in Glehr is not such a “series switch” and is “on” during a load dump. The MOSFET (27) of Heitzmann is also not such a “series switch” and is connected in parallel with the generator. Glehr and Heitzmann, therefore, do not teach or suggest the “series switch” of claim 16.

Based upon the above arguments, it is respectfully asserted that Glehr and Heitzmann, whether considered alone or in combination, do not teach or suggest the claimed limitations of independent claims 1 and 16. In particular, these references do not teach or suggest the “disconnecting” or “series switch” limitations required by independent claims 1 and 16.

Applicant respectfully requests, therefore, withdrawal of the rejections for claims 1 and 16, as well as the rejections for claims 2-8 and 17-23 that depend from these claims.

Conclusion

In view of the foregoing, it is respectfully submitted that the pending claims are in condition for allowance. Accordingly, favorable reconsideration and Notice of Allowance are respectfully requested.

The Examiner is invited to contact the undersigned at the phone number indicated below with any questions or comments or to otherwise facilitate expeditious and compact prosecution of the application.

Respectfully submitted,

A handwritten signature in black ink, appearing to read "Brian W. Peterman", written over a horizontal line.

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